

CTR Employer Survey Report

Thank you for completing your Commute Trip Reduction survey. This report contains the survey results.

Employer Id : E82165

Employer : Astronics Advanced Electronic Systems

Worksite : Astronics at QWCC

Street : 11261 Willows Rd NE

Jurisdiction : City of Redmond

Survey Date : 9/15/2017

Survey : TMP

Survey Type : Online

Response Rate : 69%

Drive Alone & One-Way VMT Rates at this Worksite

Employees and Survey Response Information

Drive Alone : 89.2%

Reported Total Employees at Worksite: 117

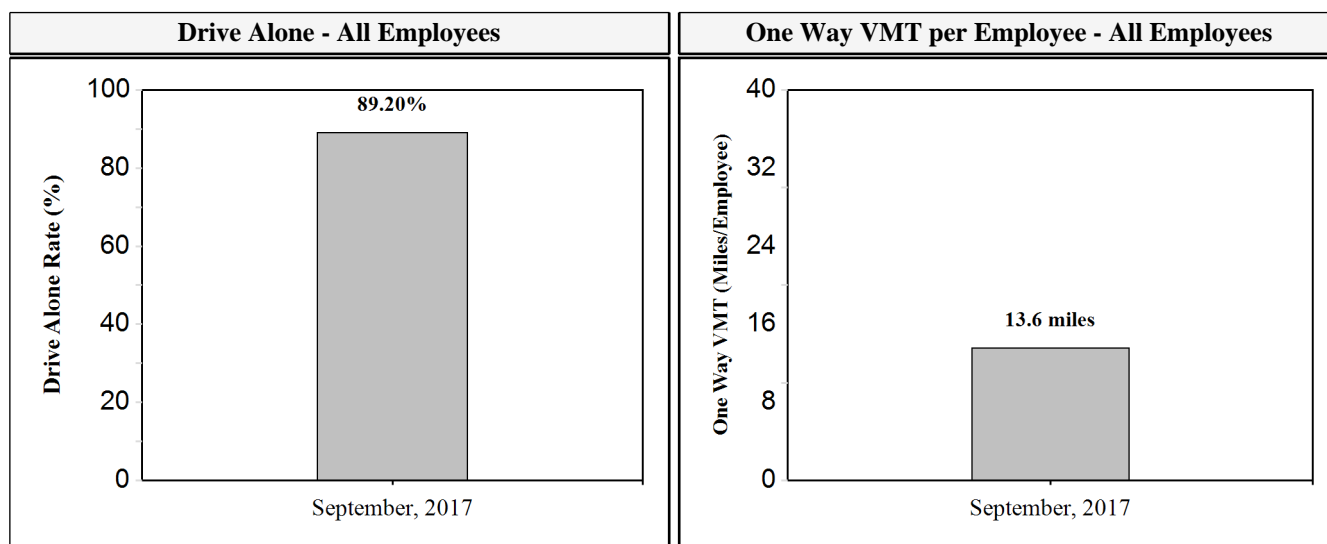
Surveys Distributed : 117

One-Way VMT per employee : 13.6

Surveys Returned : 81

Surveys Returned by CTR Affected Employees : 74

Total Estimated CTR - Affected Employees at Worksite : 106



Site History and Goal

Cycle	Drive Alone - All	Drive Alone - CTR Affected	VMT / Employee - All	VMT / Employee - CTR Affected
September, 2017	89.2%	88.5%	13.6	13.1

Comparison Between Rates With and Without Fill-In

The survey response rate is indicated on Page 1. To encourage a response rate of at least 70%, additional drive alone trips are added to survey results for worksites with a response rate of less than 70%. For these worksites it is assumed that non-responding employees between the actual response rate and 70% drive alone 5 days a week. These additional trips represent the "Fill-In" applied. Note that fill-in is not applied to a worksite's first survey in the 2007 to 2012 cycle (their baseline survey).

	September, 2017	September, 2017 Without Fill-In
Drive Alone - All Employees*	89.2%	89.4%
Drive Alone - CTR Affected Employees*	88.5%	88.6%
VMT/Employee - All Employees	13.6	13.6
VMT/Employees - CTR Affected Employees	13.1	13.2

* Drive alone rate includes one person motorcycles.

GHG Emissions: Total for Drive Alone, Carpools, Vanpools

Annual Greenhouse Gas Emissions (Metric Tons CO₂e) for Roundtrip Commute*

Value	September, 2017
Emissions for Surveyed Employees	230
Estimated Emissions for Total Employment	332

* Estimated based on VMT from commuters driving alone, carpooling, vanpooling, or motorcycling, without fill-in applied.

Bus Transit Passenger Miles and Rail Transit Passenger Miles*

Annual Transit Passenger Miles (includes Roundtrip Commute)	September, 2017
Bus Annual Passenger Miles - Estimated for Total Employment	9,389
Bus Annual Passenger Miles - Surveyed Employees	6,500
Ferry Annual Passenger Miles - Estimated for Total Employment	0
Ferry Annual Passenger Miles - Surveyed Employees	0
Train/Light Rail/Streetcar Annual Passenger Miles - Estimated for Total Employment	0
Train/Light Rail/Streetcar Annual Passenger Miles - Surveyed Employees	0

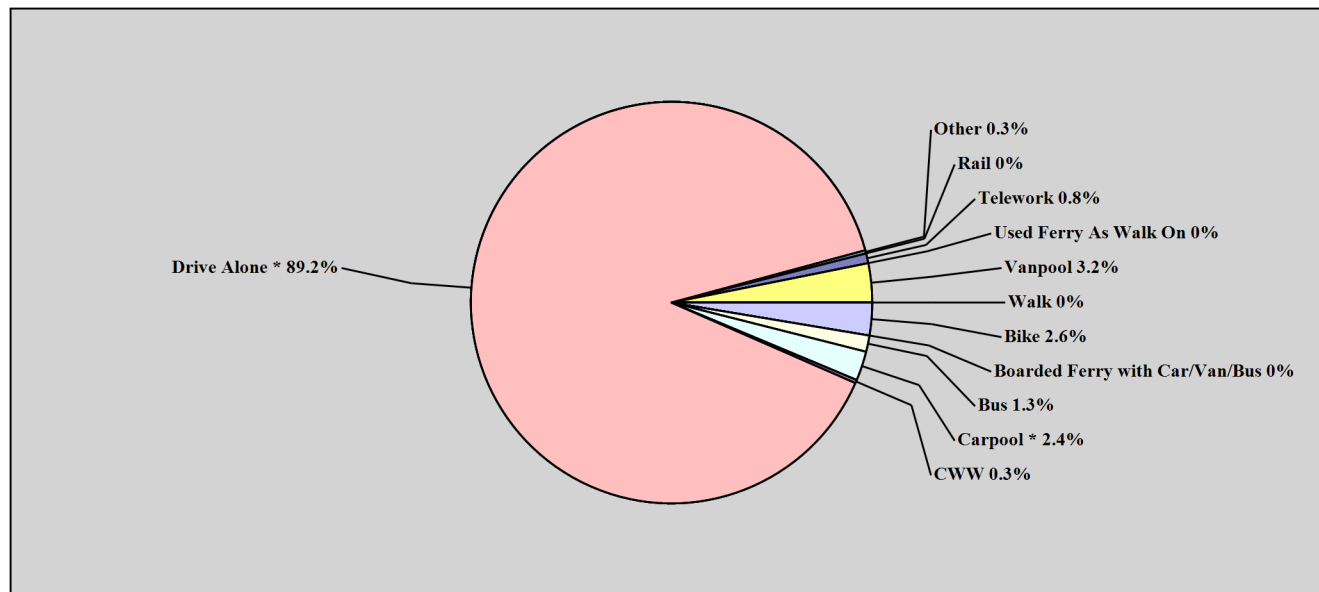
* Transit passenger miles can be used to gauge changes in transit usage, and also to calculate greenhouse gas emissions from transit commute trips. However, emissions attributable to transit vary widely, depending on the efficiency/energy source of transit vehicles and transit vehicle passenger load (typically ranging from 0.1 to 0.9 pounds CO₂e emissions/passenger mile). Employers are strongly encouraged to contact their local transit agencies for more precise information on GHG emissions for their transit trips. If nothing else is available, the value of 0.47 pounds (0.00021 metric tons) per passenger mile can be used to estimate CO₂e emissions for bus transit, and 0.39 pounds (0.00018 metric tons) CO₂e emissions per passenger mile for train/light rail/streetcar.

Q3.	One way, how many miles do you commute from home to your usual work location?
	Average one-way distance home to work: 15.2 miles

Commute Trips By Mode - All Employees

Q.4a: Last week, what type of transportation did you use each day to commute TO your usual work location? (Mode used for the longest distance.)

Mode Split - All Employees



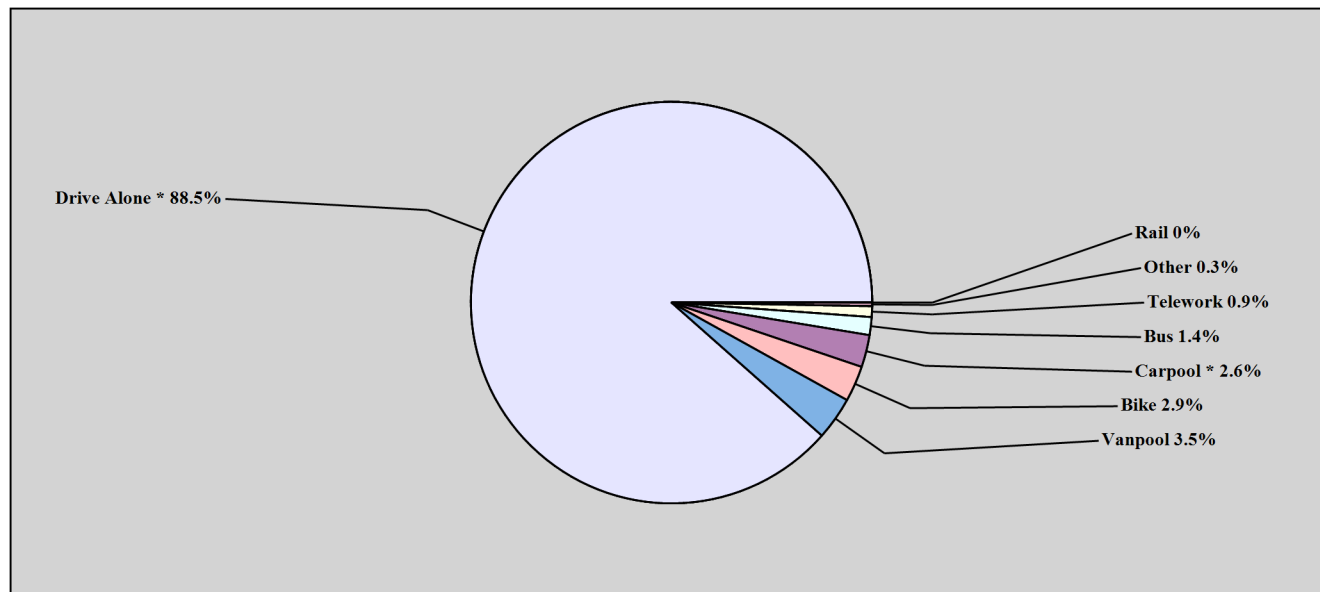
Mode	Trips During This Survey Week	% of Trips During This Survey Week	Employees Who Used This Mode at Least Once During This Survey Week	% of Employees Who Used This Mode at Least Once During This Survey Week
Drive Alone *	340	89.2%	78	96.3%
Carpool *	9	2.4%	3	3.7%
Vanpool	12	3.2%	4	4.9%
Bus	5	1.3%	1	1.2%
Rail	0	0%	0	0%
Bike	10	2.6%	5	6.2%
Walk	0	0%	0	0%
Telework	3	0.8%	3	3.7%
CWW	1	0.3%	1	1.2%
Boarded Ferry with Car/Van/Bus	0	0%	0	0%
Used Ferry As Walk On	0	0%	0	0%
Other	1	0.3%	1	1.2%

* Drive alone mode includes fill-in, where applicable.

Commute Trips By Mode - Affected Employees

Q.4a: Last week, what type of transportation did you use each day to commute TO your usual work location? (Mode used for the longest distance.)

Mode Split - Affected Employees



Mode	Trips During This Survey Week	% of Trips During This Survey Week	Employees Who Used This Mode at Least Once During This Survey Week	% of Employees Who Used This Mode at Least Once During This Survey Week
Drive Alone *	307	88.5%	71	95.9%
Carpool *	9	2.6%	3	4.1%
Vanpool	12	3.5%	4	5.4%
Bus	5	1.4%	1	1.4%
Rail	0	0%	0	0%
Bike	10	2.9%	5	6.8%
Walk	0	0%	0	0%
Telework	3	0.9%	3	4.1%
CWW	0	0%	0	0%
Boarded Ferry with Car/Van/Bus	0	0%	0	0%
Used Ferry As Walk On	0	0%	0	0%
Other	1	0.3%	1	1.4%

* Drive alone mode includes fill-in, where applicable.

Alternative Modes - Number of Employees Who Used a Non-Drive Alone Mode:

Non-Drive Alone Number Of Days	Exactly this # of Employees	Exactly this % of Employees	At least # of Employees	At least % of employees
0 Day	64	79%	81	100%
1 Days	8	10%	17	21%
2 Days	1	1%	9	11%
3 Days	3	4%	8	10%
4 Days	3	4%	5	6%
5 Days	2	2%	2	2%
6 or More Days	0	0%	0	0%

Work Schedules By Group - All Employees (This table shows the relationship between work schedule and commute mode)

Employees who worked:	Drive Alone 5 days / week		Drive Alone 3 or 4 days / week		Used Bus At Least 3 days / week		Carpooled At Least 3 days / week		Used Rail At Least 3 days / week		Vanpooled At Least 3 times / week		Biked or Walked At Least 3 Days / week		Used 'Other' Modes At Least 3 Days / week		Used Non- Drive Alone At Least 3 Days / week	
5 days a week	51	68%	12	16%	1	1.3%	2	2.7%	0	0%	2	2.7%	1	1.3%	0	0%	7	9.3%
4 days a week (4/10s)	0	0%	4	100%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
3 days a week	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
9 days in 2 weeks (9/80)	1	50%	0	0%	0	0%	0	0%	0	0%	0	0%	1	50%	0	0%	1	50%
7 days in 2 weeks	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Other	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

Count by Occupancy of Carpools and Vanpools

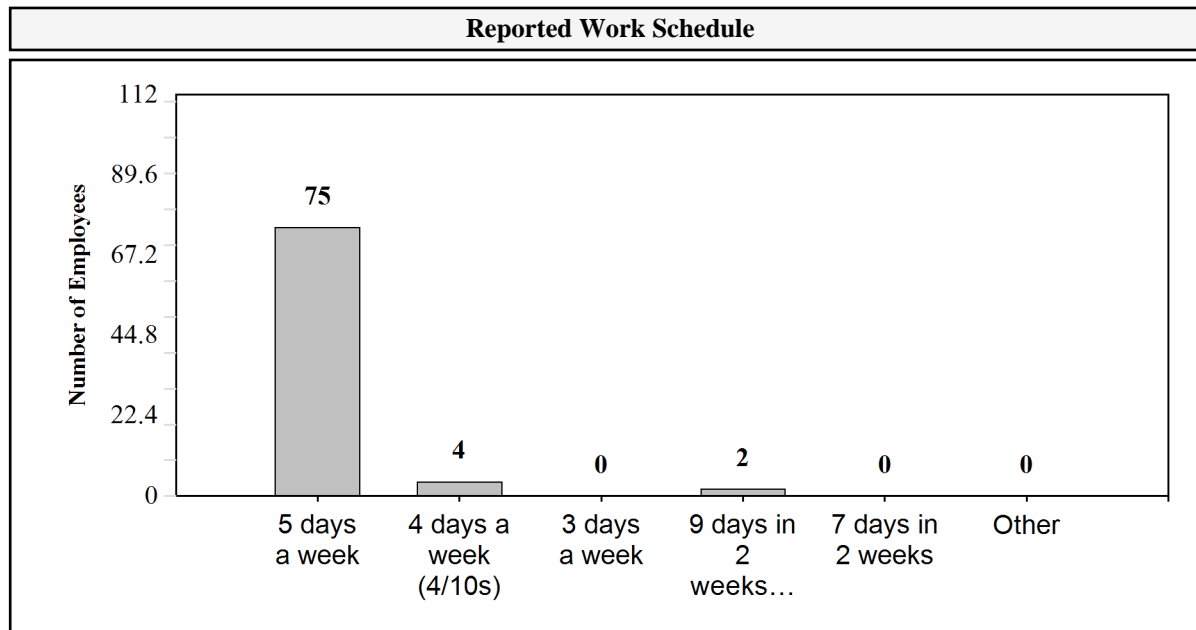
Q.4 If you used a carpool or vanpool as part of your commute, how many people (age 16 or older) are usually in the vehicle?

Ridesharing Occupancy	Mode	Response Count
2*	Carpool	9
3	Carpool	0
4	Carpool	0
5	Carpool	0
>5	Carpool	0
<5	Vanpool	4
5	Vanpool	0
6	Vanpool	0
7	Vanpool	8
8	Vanpool	0
9	Vanpool	0
10	Vanpool	0
11	Vanpool	0
12	Vanpool	0
13	Vanpool	0
14	Vanpool	0
>14	Vanpool	0

* Motorcycle-2 counted with Carpool-2 for this table.

Reported Work Schedule - All Employees

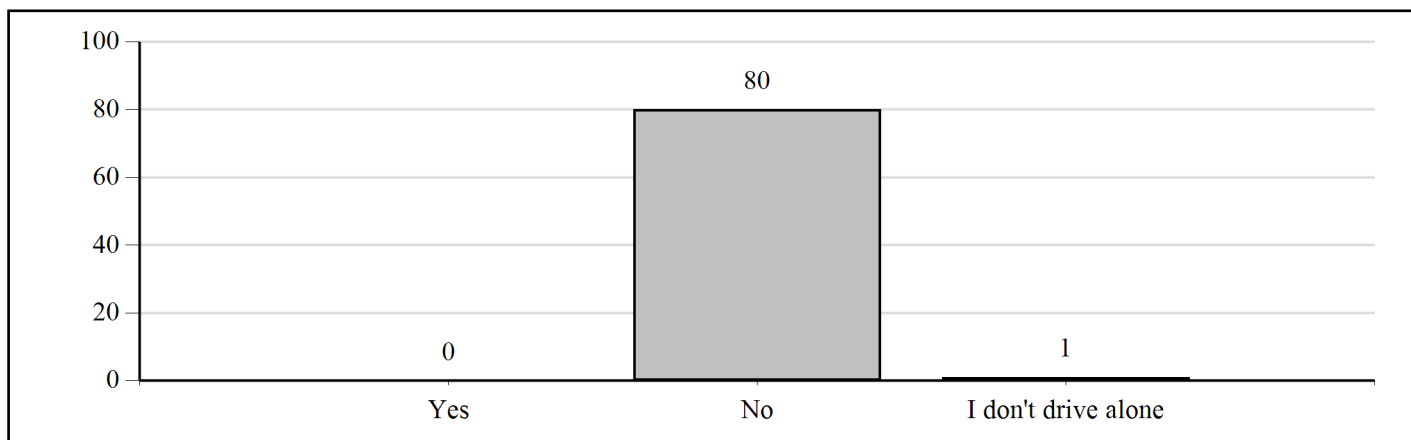
Q.8 Which of the following best describes your work schedule?



Reported Work Schedule	# Of Responses	% Of Employees
5 days a week	75	92.6%
4 days a week (4/10s)	4	4.9%
3 days a week	0	0%
9 days in 2 weeks (9/80)	2	2.5%
7 days in 2 weeks	0	0%
Other	0	0%

Parking and Telework

Q.9: On the most recent day that you drove alone to work, did you pay to park? (Mark "yes" if you paid that day, if you prepaid, if you are billed later, or if the cost of parking is deducted from your paycheck.)



Q.10: How many days do you typically telework?

Telework Frequency	# of Responses	% of Responses
No Answer/Blank	0	0.0%
I don't telework	46	56.8%
Occasionally, on an as-needed basis	21	25.9%
1-2 days/month	11	13.6%
1 day/week	3	3.7%
2 days/week	0	0.0%
3 days/week	0	0.0%

Reasons for driving alone to work/not driving alone to work
Q11. When you do not drive alone to work, what are the three most important reasons?

Question Text	# of Responses	% of Responses
Financial incentives for carpooling, bicycling or walking.	30	16.9%
To save money	28	15.8%
Personal health or well-being	23	13.0%
I have the option of teleworking	20	11.3%
Environmental and community benefits	20	11.3%
To save time using the HOV lane	15	8.5%
Other	12	6.8%
Free or subsidized bus, train, vanpool pass or fare benefit	11	6.2%
Driving myself is not an option	6	3.4%
Emergency ride home is provided	5	2.8%
Preferred/reserved carpool/vanpool parking is provided	4	2.3%
I receive a financial incentive for giving up my parking space	3	1.7%
Cost of parking or lack of parking	0	0.0%

Q12. When you drive alone to work, what are the three most important reasons?

Question Text	# of Responses	% of Responses
I like the convenience of having my car	60	26.9%
Riding the bus or train is inconvenient or takes too long	56	25.1%
Family care or similar obligations	28	12.6%
Other	26	11.7%
My job requires me to use my car for work	21	9.4%
My commute distance is too short	21	9.4%
Bicycling or walking isn't safe	9	4.0%
I need more information on alternative modes	2	0.9%
There isn't any secure or covered bicycle parking	0	0.0%

Employee Transit Use - All Employees

Q 13. Please indicate the number of one-way transit or walk-on ferry trips you took last week on each system listed below (for any purpose, not just getting to and from work). Please select "Other" if your transit isn't listed.

Trips/Week	Employees Making This Many Transit Trips in a Week									
	Community Transit	Everett Transit	Intercity Transit	King County Metro	Kitsap Transit	Pierce Transit	Sound Transit	Whatcom Transportation Authority	Ferry as Walk-On	Other
1	1	0	0	3	0	0	0	0	1	1
2	0	0	0	2	0	0	0	0	0	1
3	0	0	0	0	0	0	1	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	1	0	0	0	0	0	0
8	0	0	0	1	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
11 or more	0	0	0	0	0	0	0	0	0	0
# Of Employees using Transit	1	0	0	7	0	0	1	0	1	2
Total One-Way Transit Trips Per Week	1	0	0	22	0	0	3	0	1	3

Employee Transit Use - Affected Employees

Q 13. Please indicate the number of one-way transit or walk-on ferry trips you took last week on each system listed below (for any purpose, not just getting to and from work). Please select "Other" if your transit isn't listed.

Trips/Week	Employees Making This Many Transit Trips in a Week									
	Community Transit	Everett Transit	Intercity Transit	King County Metro	Kitsap Transit	Pierce Transit	Sound Transit	Whatcom Transportation Authority	Ferry as Walk-On	Other
1	1	0	0	3	0	0	0	0	0	1
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	1	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	1	0	0	0	0	0	0
8	0	0	0	1	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
11 or more	0	0	0	0	0	0	0	0	0	0
# Of Employees using Transit	1	0	0	5	0	0	1	0	0	1
Total One-Way Transit Trips Per Week	1	0	0	18	0	0	3	0	0	1

Commute Mode By ZipCode for All Employees

Q6. What is your home zip code?

Home Zip code	Total Employees	Employee Percentage	Weekly Count of Trips By Mode												
			Drive Alone	Carpool	Vanpool	Motorcycle	Bus	Train	Bike	Walk	Telework	CWW	Ferry (Car/Van/Bus)	Ferry (walk-on)	Other
98021	7	8.64%	21	0	0	0	0	0	0	0	2	0	0	0	0
98052	6	7.41%	22	0	0	0	0	0	7	0	0	0	0	0	0
98012	5	6.17%	19	5	0	0	0	0	0	0	0	0	0	0	0
98034	5	6.17%	25	0	0	0	0	0	0	0	0	0	0	0	0
98075	4	4.94%	20	0	0	0	0	0	0	0	0	0	0	0	0
98028	3	3.70%	11	0	0	0	0	0	1	0	0	0	0	0	0
98056	3	3.70%	15	0	0	0	0	0	0	0	0	0	0	0	0
98059	3	3.70%	12	3	0	0	0	0	0	0	0	0	0	0	0
98077	3	3.70%	15	0	0	0	0	0	0	0	0	0	0	0	0
98103	3	3.70%	12	0	2	0	0	0	0	0	0	0	0	0	1
98155	3	3.70%	15	0	0	0	0	0	0	0	0	0	0	0	0
98272	3	3.70%	9	0	4	2	0	0	0	0	0	0	0	0	0
98007	2	2.47%	9	0	0	0	0	0	1	0	0	0	0	0	0
98014	2	2.47%	10	1	0	0	0	0	0	0	0	0	0	0	0
98019	2	2.47%	10	0	0	0	0	0	0	0	0	0	0	0	0
98031	2	2.47%	8	0	0	0	0	0	0	0	1	0	0	0	0
98203	2	2.47%	9	0	0	0	0	0	0	0	0	0	0	0	0
98270	2	2.47%	8	0	0	0	0	0	0	0	0	1	0	0	0
98003	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0
98006	1	1.23%	4	0	0	0	0	0	0	0	0	0	0	0	0
98008	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0
98011	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0
98020	1	1.23%	4	0	0	0	0	0	1	0	0	0	0	0	0
98025	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0
98027	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0
98033	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0



			Weekly Count of Trips By Mode												
Home Zip code	Total Employees	Employee Percentage	Drive Alone	Carpool	Vanpool	Motorcycle	Bus	Train	Bike	Walk	Telework	CWW	Ferry (Car/Van/Bus)	Ferry (walk-on)	Other
98036	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0
98037	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0
98045	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0
98058	1	1.23%	1	0	4	0	0	0	0	0	0	0	0	0	0
98072	1	1.23%	1	0	0	0	0	0	0	0	0	0	0	0	0
98087	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0
98106	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0
98115	1	1.23%	3	0	2	0	0	0	0	0	0	0	0	0	0
98125	1	1.23%	0	0	0	0	5	0	0	0	0	0	0	0	0
98136	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0
98168	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0
98204	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0
98290	1	1.23%	5	0	0	0	0	0	0	0	0	0	0	0	0